



# CREEKSIDE SCIENCE

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Hello Michael,

I am writing to outline our plan for the Guadalupe Oak Tree Replanting Project, file number PDA-93-018-01. This project requires that GRDF replace ten Coast live oaks (*Quercus agrifolia*) that didn't persist from an original outplanting effort of 168 Coast live oaks in 2010.

Progress on this project has been hindered by revelations of the extent of Phytophthora infestations being introduced to otherwise healthy native habitats by infected plant nursery stock. Sudden Oak Death (SOD), or *Phytophthora ramorum*, is currently decimating stands of Coast live oaks and tanoaks throughout the Santa Cruz Mountains and elsewhere. This is just one species of Phytophthora, and there are numerous species being introduced through nursery stock now. These include *P. cinnamomi*, which has wreaked havoc over wide areas in southwest Australia, which has a similar climate to ours. Also being locally introduced to previously uninfected areas by nursery stock are *P. cactorum*, *P. tentaculata*, *P. cambivora*, and *P. megasperma*.

It is imperative that we take measures to avoid introducing Phytophthora species to any of GRDF's projects. We do not want to introduce anything to this site because it is connected to extensive native habitats filled with species that could be prone to infection. Hopefully earlier plantings like the one in 2010 didn't introduce any Phytophthora, and regardless of whether they did or not, we need to be extremely careful moving forward. If we introduce a pathogen like *P. cinnamomi* to Guadalupe, the costs to GRDF could be great, and the entire mitigation project could be enormously set back.

I propose that we purchase 10 oak trees from a reputable nursery and run Phytophthora tests on them through the California Department of Food and Agriculture's Plant Pest Diagnostics Lab. We will test each tree individually, and if they pass, we can proceed to plant them on site. If any positive results arise, we can discuss our options at that time. Whereas there is always the possibility of a false negative, by pursuing this course of action we would be making an effort to avoid infecting the site. Given what we now understand about how nurseries spread these infections, this course of action would be far better than purchasing nursery stock and just planting them.

Yours sincerely,

James Quenelle, Biologist